

Apple Energy Presents

INDIA'S MOST ENERGY EFFICIENT FAN

Gorilla Ceiling Fan



- ◉ Super energy efficient BLDC Motor
- ◉ Highest service value (air delivery/watt)
- ◉ No humming noise from motor
- ◉ Consistent performance even at low voltage and power fluctuation
- ◉ No heating of fan even after long hours of runtime resulting in extra-long life
- ◉ Operates at same speed from 110v-285v

Operated
by Smart
remote

Comes with
Timer and
Sleep mode

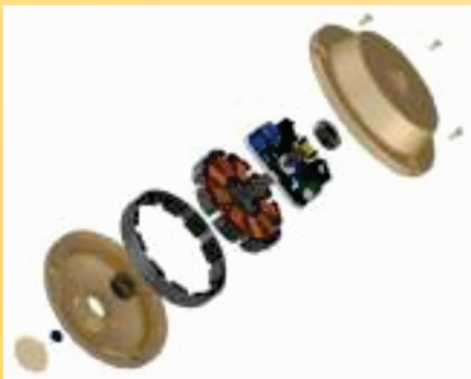
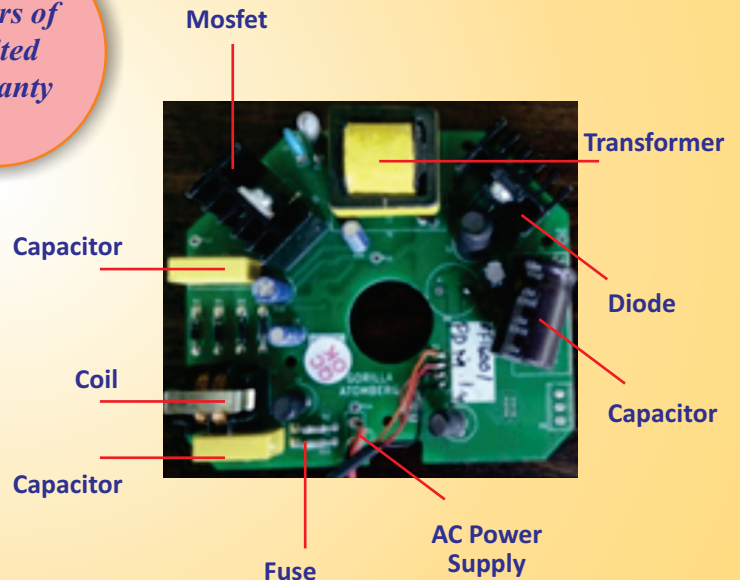
Runs
3 times
longer on
an inverter

3 years of
limited
warranty

What really makes it so efficient?



Gorilla Motor Remote sensor & LED indicator



Expanded view of motor with various parts

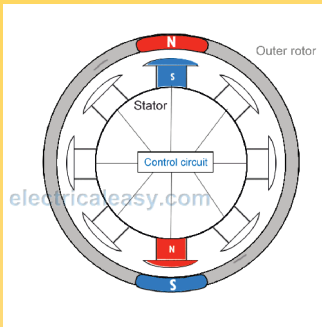
Irrespective of the Input Voltage the fan internally runs on 24V DC

In the stator instead of Windings, permanent Magnets are used.

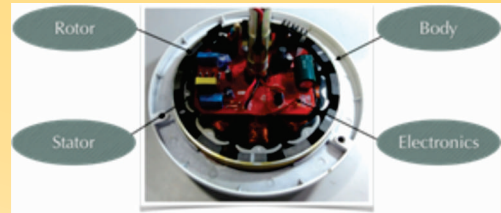
Smart electronics which provide only required amount of power to the motor.

No power losses due to resistance due to removal of Regulator

About BLDC



BLDC stands for Brushless Direct Current, as name says BLDC motor has no mechanical brush for commutation of the windings. Commutation is deployed by help of smart electronics which is responsible for sensing the magnet rotor position with respect to stator and controls the motor driving switches. Winding magnetic field react with field of permanent magnets on the rotor to develop the required torque. The following two designs are used for Commutation in BLDC:

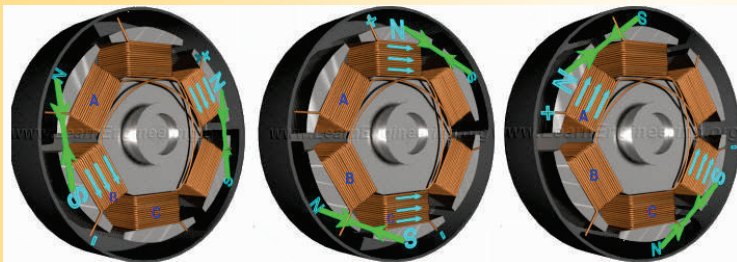


1. Sensor less - In sensor less design to understand the position of the magnet the motor generates a Back EMF. The advantage of this design is unlike sensor design there is nil chance of mechanical sensor getting damaged. This improves the life of the motor. This is the method used in Gorilla Ceiling Fan.

2. Sensor Design - Hall effect Sensor is used in sensor based design which determine the position of magnet. As it's a mechanical component there is a chance of damages.

How it runs ?

Stator windings of a circuit. The control circuit energies proper winding at proper time, in a pattern which



rotates around the stator. The rotor magnet tries to align with the energized electromagnet of the stator, and as soon as it aligns, the next electromagnet is energized. Thus the rotor keeps running.

Return on Investment

| | Gorilla | 5 Star | Normal Induction Fan |
|--|---------|---------------|----------------------|
| Power Consumption(W) | 28 | 50-60 | 75 |
| No of Units per day for 16 Hours usage | 0.448 | 0.8 | 1.2 |
| No of Units consumed per Year | 163.52 | 292 | 438 |
| Bill (Rs 6/Unit) | 981.12 | 1752 | 2628 |
| Total Savings (INR) | | 770.88 | 1646.88 |

Gorilla can save upto **Rs.1,647/-** Per year



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